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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,562	01/20/2004	Shih-Hsien Chen	AUO-101	1069

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EXAMINER

HAN, JASON

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/760,562

Applicant(s)

CHEN ET AL

Examiner

Jason M. Han

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to Claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.
2. The below rejections have been based in light of the specification, but rendered the broadest interpretation by the examiner [MPEP 2111]. In addition, the following references cited below are considered commensurate to the scope of the claims as stated by applicant.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4-6, and 8-13 rejected under 35 U.S.C. 102(b) as being anticipated by Ayres (U.S. Patent 6068381).
4. With regards to Claim 1, Ayres discloses a backlight assembly for illuminating a liquid crystal display including:
 - A frame having a frame body [Figure 1: (20)] in which are embedded a plurality of contact pads [Figure 1: (58, 60)], wherein the frame body is configured to assemble the liquid crystal panel [Figure 8: (86)] with the backlight assembly [Figure 8: (90); Column 2, Lines 63-65];
 - A light guide plate [Figure 1: (14)] mounted to the frame; and

Art Unit: 2875

- One or more light-emitting devices [Figure 1: (52)] connected to the contact pads and respectively having a light-irradiating surface facing a first surface [Figure 1: (44)] of the light guide plate, whereby the light irradiated from the one or more light-emitting devices emerges out through a second surface of the light guide plate [Figure 1: (46)] towards the liquid crystal panel.
5. With regards to Claim 2, Ayres discloses, "In providing the improved light output, the device outputs a combination of light extracted via a light extracting surface of the waveguide as well as light reflected from an opposed reflective surface of the waveguide [Column 1, Lines 63-67]... The reflective white plastic diffuser mounted behind the waveguide reflects light from the light scattering element back through the top surface of the waveguide through the open spaces between the dots of the light scattering element approximately doubling the light output of the back lighting device vis-à-vis conventional back lighting devices [Column 3, Lines 24-30]."
6. With regards to Claim 4, Ayres discloses the one or more light-emitting devices are positioned approximate to a side edge of the light guide plate [Figure 1: (44)].
7. With regards to Claim 5, Ayres discloses a reflection member [Figure 1: (40); Column 4, Lines 47-49; Column 1, Lines 38-43] in an area of the side edge of the light guide plate to reflect light irradiated from the one or more light-emitting devices.
8. With regards to Claim 6, Ayres discloses the reflection member being a reflective coating/foil [Column 1, Lines 38-43].
9. With regards to Claim 8, Ayres discloses the light guide plate including one or more recessed cavities [Figure 1: surrounding areas of (44)] on the first surface for

Art Unit: 2875

accommodating the light-irradiating surface [Figure 1: (44)] of the one or more light-emitting devices.

10. With regards to Claim 9, Ayres discloses the first surface [Figure 1: (44)] of the light guide plate being a side edge surface of the light guide plate.

11. With regards to Claim 10, Ayres discloses the frame body being formed by injection molding [Column 2, Lines 52-56].

12. With regards to Claim 11, Ayres discloses the contact pads [Figures 1 & 4: (56, 58, 60)] including resilient bent portions [Figure 4: (66)] to which the one or more light-emitting devices [Figure 4: (52)] are connected.

13. With regards to Claim 12, Ayres discloses, "The lamp and terminal assembly 16, as shown in FIG. 4, is made up of a conventional illuminating lamp member 52 having a tubular light emitting body 54 mounted to enlarged metallic end members 56.

Preshaped terminals 58, 60 include tabs 62 that are soldered directly to the end members 56 [Column 4, Lines 60-65; underline added by examiner for emphasis]."

14. With regards to Claim 13, Ayres discloses the contact pads being made of a conductive metal or metallic alloy [Column 4, Lines 60-63].

15. Claims 1, 3-5, 7, and 14 rejected under 35 U.S.C. 102(b) as being anticipated by Ishihara et al. (U.S. Publication 2001/0003504).

16. With regards to Claim 1, Ishihara discloses a backlight assembly for illuminating a liquid crystal panel including:

- A frame having a frame body [Figure 3: (4, 5, 39)] in which are embedded a plurality of contact pads [Figures 1, 3: (24, 40)], wherein the frame body is

configured to assemble the liquid crystal panel [Figure 3: (1A)] with the backlight assembly;

- A light guide plate [Figure 3: (2A)] mounted to the frame; and
- One or more light-emitting devices [Figure 3: (3)] connected to the contact pads and respectively having a light-irradiating surface facing a first surface [Figure 3: area proximate (24)] of the light guide plate, whereby the light irradiated from the one or more light-emitting devices emerges out through a second surface of the light guide plate [Figure 3: (27)] towards the liquid crystal panel.

17. With regards to Claim 3, Ishihara discloses the one or more light-emitting devices [Figure 3: (3)] are placed at a side of the light guide plate opposite to the side of the liquid crystal panel [Figure 3: (1A, 27)].

18. With regards to Claim 4, Ishihara discloses the one or more light-emitting devices [Figure 3: (3)] being positioned approximate to a side edge of the light guide plate.

19. With regards to Claim 5, Ishihara discloses a reflection member [Figure 3: (5)] being provided in an area of the side edge of the light guide plate to reflect light irradiated from the one or more light-emitting devices.

20. With regards to Claim 7, Ishihara discloses the reflection member [Figure 3: (5)] being a surface of the light guide plate inclined at an angle.

21. With regards to Claim 14, Ishihara discloses the one or more light-emitting devices including a light-emitting diode [Figure 3: (3); Page 1, Paragraph 10].

Art Unit: 2875

22. Claims 15-16 and 18-19 rejected under 35 U.S.C. 102(b) as being anticipated by Ayres (U.S. Patent 5947578).

23. With regards to Claim 15, Ayres discloses a frame structure for a backlight assembly including:

- A frame body [Figure 3: (34)] configured to assemble a liquid crystal panel with the backlight assembly [Column 1, Lines 34-36]; and
- A plurality of contact pads [Figures 2-3: (24)] embedded in the frame body, wherein the contact pads externally connect to a power source (inherent) and are configured to receive the mount of one or more light-emitting devices [Figures 2-3: (22)].

24. With regards to Claim 16, Ayres discloses a frame body [Figure 3: (34)]. It should be noted that the method of forming a device is not germane to the issue of the device itself. Therefore, this limitation has not been given patentable weight. In addition, Ayres does teach the method of injection molding [Column 5, Lines 20-29].

25. With regards to Claim 18, Ayres discloses the contacts being made of a conductive metal or metallic alloy [Column 3, Lines 40-41; e.g., lead].

26. With regards to Claim 19, Ayres discloses the one ore more light-emitting devices including a light-emitting diode [Column 2, Lines 3-5].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2875

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ayres (U.S. Patent 5947578) as applied to Claim 15 above, and further in view of Ayres (U.S. Patent 6068381).

Ayres (5947578) discloses the claimed invention as cited above, but does not specifically teach the contact pads including resilient bent portions to which the one or more light-emitting devices are connected by engagement.

Ayres (6068381) teaches contact pads [Figures 1 & 4: (58, 60)] that include resilient bent portions [Figure 4: (66)] to which a light device [Figure 4: (52)] is connected via engagement.

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the backlight assembly of Ayres (5947578) to incorporate the contact pads with resilient bent portions of Ayres (6068381) in order to facilitate easy installment/removal of the light-emitting device(s).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 2875

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Han whose telephone number is (571) 272-2207. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMH (5/12/2005)


Stephen Husar
Primary Examiner